

REMARKS

The present Amendment amends claims 1-5 and 15, leaves claim 6 unchanged and cancels claims 7-14. Therefore, the present application has pending claims 1-6 and 15.

Claim 15 stands objected to due informalities noted by the Examiner in paragraph 4 of the Office Action. Amendments were made to claim 15 to correct the informalities noted by the Examiner. Therefore, this objection is overcome and should be withdrawn.

Claims 1-6 and 15 stand rejected under 35 USC §103(a) as being unpatentable over Dabbieri (U.S. Patent No. 6,965,876) in view of Grajo article entitled ("Strategic Layout Planning and Simulation for Lean Manufacturing: A LayOPT Tutorial"). This rejection is traversed for the following reasons. Applicants submit that the features of the present invention as now more clearly recited in claims 1-6 and 15 are not taught or suggested by Dabbieri or Grajo whether taken individually or in combination with each other as suggested by the Examiner. Therefore, Applicants respectfully request the Examiner to reconsider and withdraw this rejection.

Amendments were made to the claims to more clearly describe features of the present invention as recited in the claims. Particularly, amendments were made to the claims to recite that the present invention is directed to a facility management system, for example, such as that recited in claim 1.

The facility management system as recited in claim 1 includes flow line-measuring means for measuring a flow line of a moving body by detecting the moving body in a facility to be monitored and outputting flow line

information based on said measuring of said flow line, and management information generating means for producing management information for management from the flow line information.

According to the present invention the management information generating means includes moving body identifying means for identifying the moving body, and movement cost-calculating means for calculating a cost expended on movement of the moving body from the flow line information. The movement cost-calculating means calculates the movement cost based on a time unit price specific to said identified moving body and a time period required for the movement as the movement cost.

Further, according to the present invention the time unit price is a value corresponding to the cost of moving the moving body per unit of time and the time period is the length of time it takes to move the moving body along the length of the flow line.

The above described features of the present invention now more clearly recited in the claims are not taught or suggested by any of the references of record whether taken individually or in combination with each other. Particularly, the above described features of the present invention now more clearly recited in the claims are not taught or suggested by Dabbieri or Grajo whether taken individually or in combination with each other as suggested by the Examiner.

Dabbieri discloses a tracking system tracking movement of a moving object such as an employee. However, the Examiner explicitly recognizes the deficiencies of Dabbieri but attempts to supplies these deficiencies by combining Dabbieri with Grajo.

Grajo discloses a method of calculating the movement cost based on a distance unit price (cost/distance) of a moving body and the movement distance of the moving body. Namely, in Grajo "movement cost=distance unit price x movement distance" as disclosed in the last sentence in section "1.1 The LayOPT Algorithm" of Grajo. This teaching of Grajo is entirely different for the present invention as recited in the claims.

The present invention as recited in the claims is directed to a method of calculating the movement cost based on the time unit price (cost/time) of a moving body and the time period required for the movement. Namely, "movement cost=time unit price x movement time." Such features are clearly not taught or suggested by Dabbiere (as explicitly admitted by the Examiner) nor by Grajo as shown above.

Further, the indication "the layout cost expressed in dollars per unit time" at the last sentence in section 1.2.6 Flows and Weight Factors in Grajo does not teach or suggest the use of the time unit price of a moving body as in the present invention. This teaching of Grajo only suggests to look to the movement cost calculated based on movement cost=distance unit price x movement distance, in dollars per unit time.

Still further, in view of the teaching of "the sum of parts flows multiplied by unit costs and the distances" at the first sentence in section 2.4 Defining Weight factors and Flows in Grajo, it is clear that Grajo's method is directed to "movement cost=distance unit price x movement distance" not "movement cost=time unit price x movement time" as in the present invention.

Claim 2 is directed to a method of calculating the movement cost based on the time unit price (cost/time) as determined by the moving

means (walking, elevator and escalator) of a moving body and the time period required for the movement. Namely, "movement cost=time unit price of the moving means x movement time" (in claim 1, the time unit price determined by the moving body, of which point is different from claim 2 invention).

On page 24, line 11 - page 25, line 9 and Fig.11 of the present application the disclosure explains specifically an example for calculating the flow line movement cost making use of a plurality of moving means. With this method, such as the running cost and the maintenance cost of the moving means can be included in the movement cost and an advantage is obtained that a movement cost meeting the actual conditions can be calculated.

These features of the present invention as recited in claim 2 are entirely different from the disclosure of Grajo on pages 510-513 thereof contrary to the allegations by the Examiner as follows:

(1) Like claim 1 in claim 2, the movement cost is determined based on time unit price and movement time (page 24, line 11 - page 25, line 9 of the present application), and

(2) In claim 2, after dividing one flow line into a plurality of sections by the plurality of moving means, the movement cost is determined by summing the products of the time unit price of the moving means x movement time (page 24, line 11 - page 25, line 9 of the present application). In Grajo one single flow line is treated as an individual flow line contrary to the present invention as recited in the claims.

Claim 3 is directed to a method of calculating the movement cost based on the distance unit price (cost/distance) determined by the moving means (walking, elevator and escalator) of a moving body and the moved distance

(page 24, line 11 - page 25, line 9 and Fig. 11 of the present specification). With this method as recited in claim 3, the running cost and the maintenance cost of the moving means can be included in the movement cost and an advantage is obtained that a movement cost meeting the actual condition can be calculated.

These features of the present invention as recited in claim 3 are entirely different from the disclosure of Grajo on pages 510-513 thereof contrary to the allegations by the Examiner as follows:

(1) In claim 3, after dividing one flow line into a plurality of sections by the plurality of moving means, the movement cost is determined by summing the products of the distance unit price of the plurality of moving means x moved distance (page 24, line 11 - page 25, line 9 of the present application). In Grajo one single flow line is treated as an individual flow line contrary to the present invention as recited in the claims.

There are numerous other differences between the features of the present invention as now recited in the claims and Dabbieri and Grajo. The above are merely examples. In any event the features of the present invention as recited in the claims are clearly not taught or suggested by Dabbieri or Grajo whether said references are taken individually or in combination with each other.

Thus, each of Dabbieri and Grajo fails to teach or suggest management information generating means having moving body identifying means for identifying said moving body, and movement cost-calculating means for calculating a cost expended on movement of said moving body from said flow line information as recited in the claims.

Further, each of Dabbieri and Grajo fails to teach or suggest that the movement cost-calculating means calculates the movement cost based on a time unit price specific to the identified moving body and a time period required for the movement as the movement cost as recited in the claims.

Still further, each of Dabbieri and Grajo fails to teach or suggest that the time unit price is a value corresponding to the cost of moving the moving body per unit of time and the time period is the length of time it takes to move the moving body along the length of said flow line as recited in the claims.

Therefore, since each of Dabbieri, Grajo suffers from the same deficiencies relative to the features of the present invention as now more clearly recited in the claims, combining the teachings of Dabbieri and Grajo in the manner suggested by the Examiner, does not render obvious the claimed invention. Accordingly, reconsideration and withdrawal of the 35 USC §103(a) rejection of claims 1-6 and 15 as being unpatentable over Dabbieri and Grajo is respectfully requested.

The remaining references of record have been studied. Applicants submit that they do not supply any of the deficiencies noted above with respect to the references utilized in the rejection of claims 1-6 and 15.


In view of the foregoing amendments and remarks, applicants submit that claims 1-6 and 15 are in condition for allowance. Accordingly, early allowance of claims 1-6 and 15 is respectfully requested.

To the extent necessary, the applicants petition for an extension of time under 37 CFR 1.136. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, or credit any

overpayment of fees, to the deposit account of MATTINGLY, STANGER,
MALUR & BRUNDIDGE, P.C., Deposit Account No. 50-1417 (503.41022X00).

Respectfully submitted,

MATTINGLY, STANGER, MALUR & BRUNDIDGE, P.C.



Carl I. Brundidge
Registration No. 29,621

CIB/jdc
(703) 684-1120